

DSN Antenna Downtime Status and Forecast



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Antenna Downtime Status and Forecast

The following are downtimes for 2009 and 2010

- ❑ DSS-43 downtime for Life Extension and Depot Level Maintenance is scheduled for January 5 through April 12, 2009, weeks 2 – 15
 - ❑ DTRR approved the start of the downtime.
- ❑ DSS-26 downtime for X/KA HMT Maintenance is planned for 3 days, February 10, 11 & 12 of 2009.
 - ❑ Also scheduled during this time is a request for Ka-band Upgrade.
- ❑ DSS-14 3-day Grouting is planned for April of 2009 week 16.
 - ❑ Scheduled for DOYs 107 - 109.
 - ❑ Still a few conflicts to be resolved at conflict negotiation meeting.
- ❑ Complex corrective maintenance “G86/G81 Transfer Switch Electrical Maintenance”
 - ❑ Will look for time in the middle of April.
- ❑ Complex preventative maintenance “Echo Tie-Line Electrical Maintenance” has been moved to start after the Apollo Tie-Line Electrical Maintenance.
 - ❑ Kepler launch is scheduled for DOY 065
 - ❑ Looking to schedule the first part of May.
- ❑ DSS-63 downtime for EI Bearing Replacement and Depot Level Maintenance (including grouting) is re-scheduled for May 4 through June 28, 2009, weeks 19 - 26.
 - ❑ All supports have been moved to other antenna during this downtime.
 - ❑ Additional time will be added to the 2011 downtime.
- ❑ DSS-54 downtime for Ka-Band Phase 2 is scheduled for June 29 through September 27, 2009, weeks 27 – 39.
 - ❑ This downtime must end prior to the end of the fiscal year.

Antenna Downtime Status and Forecast

The following are downtimes for 2009 and 2010 (cont'd)

- ❑ DSS-14 downtime for Life Extension and Depot Level Maintenance will start October 3, 2009 and end May 2, 2010 weeks 40-17
 - ❑ This downtime is proposed to move to 2010, weeks 10-40, March 8 through October 10, 2010.
- ❑ DSS-14 3-day Grouting is planned for July and October of 2009 weeks 30 & 44.
 - ❑ With the shift of the Life Extension and Depot Level Maintenance to 2010, 2 additional grouting periods will be needed in 2009
 - ❑ Scheduled for DOYs 202-204
 - ❑ Scheduled for DOYs 300-302
 - ❑ Still a few conflicts to be resolved at conflict negotiation meeting.
- ❑ DSS-24 downtime for painting is scheduled August 24 through October 18, 2010 weeks 35 – 42
 - ❑ This downtime is proposed to move to weeks 36-43, August 31 through September 25, 2009.
 - ❑ All supports have been moved to other antenna during this downtime.
 - ❑ There will be complete 24/7 downtime for the first 4 weeks and dayshift downtime (1400-0200) for the remaining weeks.
 - ❑ Depot Level Maintenance will be scheduled the first 4 weeks of this downtime.
- ❑ DSS-15 downtime for Pintle Bearing is scheduled for May 31 through July 25, 2010, weeks 22 - 28.
 - ❑ This downtime is proposed to move to weeks 45-53 November 2, 2009 through January 3, 2010
 - ❑ DSS 15 Elevation Gearbox Replacement will be scheduled NIB in weeks 45 & 46.
- ❑ DSS-34 downtime for Azimuth Track Replacement is scheduled February 1 through April 11, 2010, weeks 5 – 14.
 - ❑ This also includes M1-5 Mirror Alignment and M5 Support Ring Replacement.
- ❑ DSS-65 downtime for Life Extension Elevation is scheduled for August 2 through October 3, 2010, weeks 31 - 39.
 - ❑ All supports have been moved to other antenna during this downtime.

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The following are downtimes for 2009 through 2010

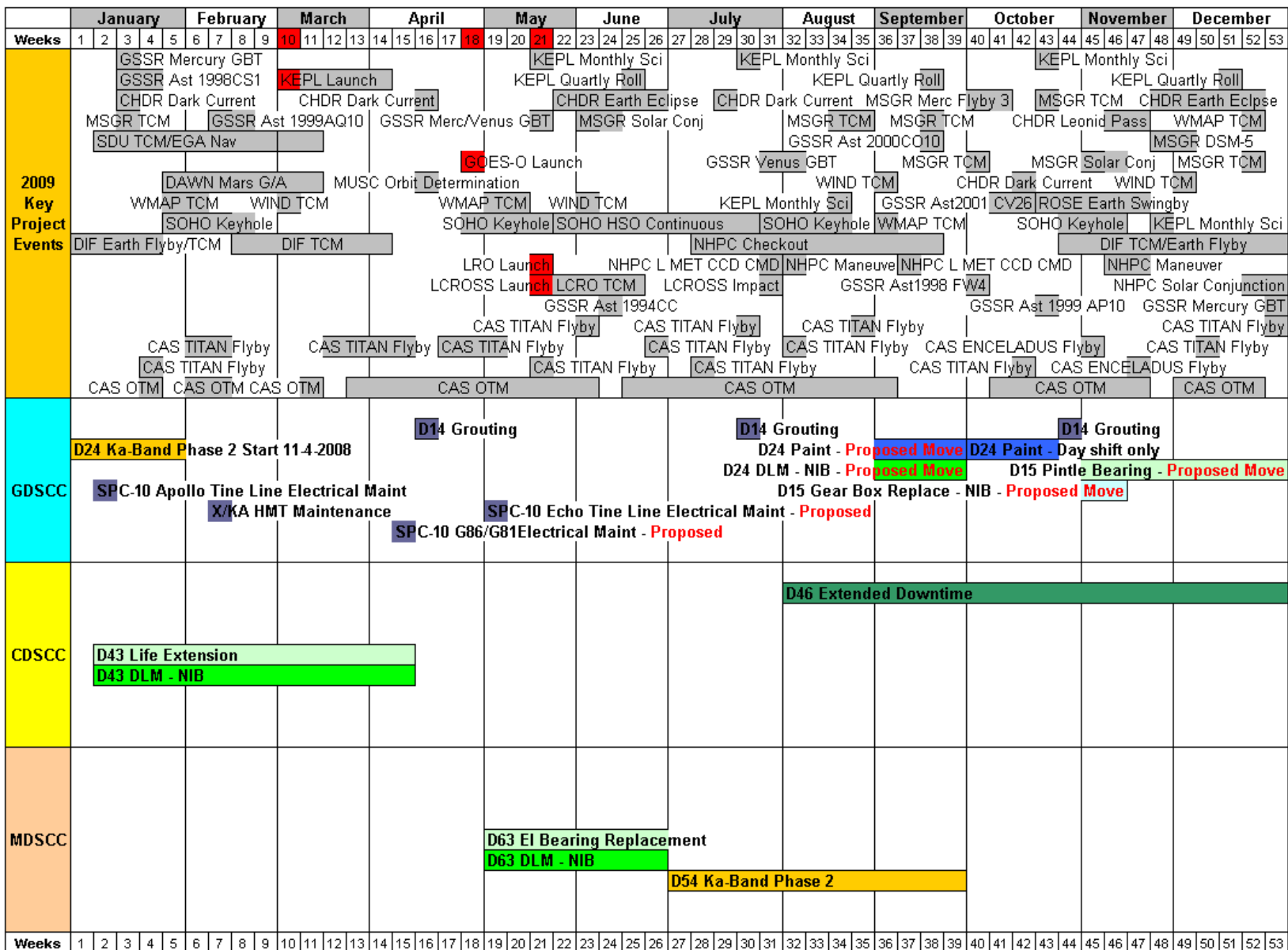
- ❑ DSS-25 downtime for Ka U/L is scheduled for August 2 – 29, 2010 weeks 31 – 34.
 - ❑ This downtime is proposed to move to weeks 45-49, November 8 through December 12, 2010.
 - ❑ Depot Level Maintenance will be scheduled during this downtime.
- ❑ As a result of the reduction of downtime for DSS-43 & DSS-63 in 2008 & 2009, it is requested to recover that time in 2010 and 2011, local spring, summer or fall after DSS-14 RTS.
 - ❑ DSS-43 is proposed for November 2010 thru February 2011 after EPOXI encounter.
 - ❑ DSS-63 is proposed for April 4, through September 4 of 2011 weeks 14 – 35, after Messenger MOI.

Antenna Downtime Status and Forecast

The following are downtimes for 2011 through 2013 (cont'd)

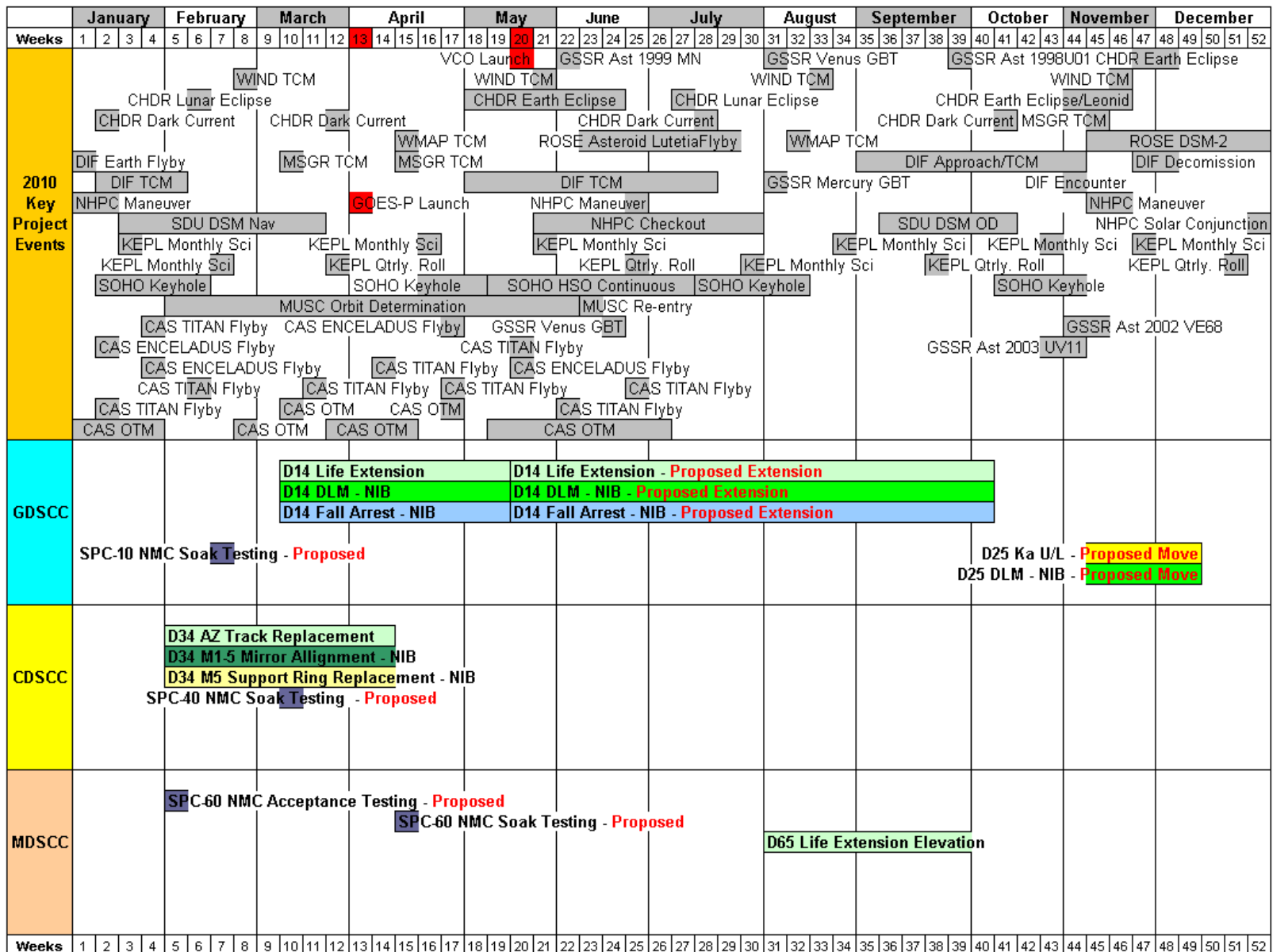
- ❑ BWG Antenna Controller Replacement is being requested starting in mid-April of 2011.
 - ❑ Duration of the first antenna at each complex should be 4 weeks
 - ❑ Duration of the second and subsequent antennas at each complex should be 3 weeks
 - ❑ All BWG antenna at a complex should be completed before moving to the next complex
 - ❑ Preferred first complex is GDSCC with DSS-24 being the first antenna and DSS-27 being the second antenna
 - ❑ Preferred first downtime at MDSCC should be DSS-54
 - ❑ Highly prefer that DSS-24 be completed prior to JUNO and MSL launches.
 - ❑ Tentative dates have been posted to the Gantt charts.
 - ❑ Question – can the ACR be scheduled before or during the AZ Track Replacement task?
- ❑ AZ Track Replacement is needed for DSS-24, 25, 26, 54 and 55 starting in 2012 in the spring and fall, 1 per complex.
 - ❑ Per conversation with Tim Sink, the following order of completion should be used – DSS-25, 26, 24 and 54. DSS-55 does not need the downtime right now. Will check later on when we need to do it.
 - ❑ Proposing DSS-26 for February 27 through May 6, 2012, weeks 9 – 18
 - ❑ Proposing DSS-25 for August 27 through November 4, 2012 weeks 35 – 44.
 - ❑ Proposing DSS-54 for February 11 through April 21, 2013 weeks 7-16
 - ❑ Proposing DSS-24 for September 2 through November 10, 2013 weeks 36-45

Antenna Downtime Status and Forecast 2009



Revised: March 2, 2009

Antenna Downtime Status and Forecast 2010



Revised: March 2, 2009

Antenna Downtime Proposed Moves 2011

	January				February				March				April				May				June				July				August				September				October				November				December							
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
2011 Key Project Events					SDU Tempel Enc																								GRAIL Launch/TCM								GRAIL-A LOI															
	SDU Approach								SDU Decommission								DAWN Vesta Approach																DAWN Vesta Orbit				GRAIL-B LOI															
	CHDR Dark Current												CHDR Earth Eclipse				CHDR Dark Current				DAWN Vesta Arrival				CHDR Dark Current								CHDR Leonid																			
	KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.															
									KEPL Qtrly. Roll								KEPL Qtrly. Roll								KEPL Qtrly. Roll				KEPL Monthly Sci.				KEPL Qtrly. Roll																			
	SOHO Keyhole								SOHO Keyhole								SOHO Keyhole								SOHO Keyhole				SOHO Keyhole				SOHO Keyhole																			
					MSGR MOI																				JUNO Launch & TCM				JUNO TCM				JUNO HV Checkout																			
					MSGR TCM				MSGR TCM								MSGR TCM								MSGR TCM								MSGR TCM																			
	NHPC Maneuver								NHPC Checkout				NHPC Checkout								NHPC Maneuver																NHPC Maneuver															
	ROSE DSM-2				ROSE DSHM Entry																WIND TCM								WIND TCM				WIND TCM				GSSR Asteroid 2000 YA															
GDSCC	D24 Antenna Controller Replacement - Proposed																	D25 Antenna Controller Replacement - Proposed																	D27 Antenna Controller Replacement - Proposed																	
CDSCC																																																				
MDSCC	D63 70m Power and HBA Upgrades & Life Extension																																																			
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52

Revised: March 2, 2009

Antenna Downtime Status and Forecast 2012

	January				February				March				April				May				June				July				August				September				October				November				December															
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52								
2012 Key Project Events	DAWN Vesta Orbit													DAWN Vesta Depart							DAWN Ceres Thrust PB and TV																																							
	WIND TCM				GSSR Ast 2000 ET70				WIND TCM											WIND TCM				KEPL Qtrly. Roll				WIND TCM								GSSR Ast 2007 PA8																								
					KEPL Monthly Sci.				KEPL Qtrly. Roll				KEPL Monthly Sci.				KEPL Qtrly. Roll				KEPL Monthly Sci.				KEPL Monthly Sci.				GSSR Ast 2007 PA8																															
	KEPL Monthly Sci.								KEPL Monthly Sci.								KEPL Monthly Sci.								KEPL Monthly Sci.																																			
	GSSR Ast Eros								JUNO DSMs DDOR											JUNO DSMs DDOR				JUNO DSMs/DDORs/TCMs								JUNO Per Maint																												
	JUNO Cruise																																																											
	CHDR Dark Current								CHDR Dark Current											CHDR Dark Current								CHDR Dark Current								CHDR Dark Current																								
					GSSR Mars				CHDR Earth Eclipse											GSSR Ast 2005 G021				CHDR Earth Eclipse								CHDR Leonid																												
	MRO Relay																																																											
	GRAIL A LOI/OPR/TSF																				NHPC DDOR				NHPC DDOR											GSSR Ast 1998 ST49																								
	GRAIL B LOI/OPR/TSF																				NHPC Maneuver							GSSR Ast 2002 AM31											GSSR Ast 4179 Tout																					
	GSSR Ast 1991 VK													GRAIL A/B Science																																														
	NHPC Beacon													NHPC Checkout													NHPC Beacon																																	
	NHPC Solar Conjunction														MSL INST Checkout 2											MSL EDL/TCM											NHPC Solar Conjunction																							
					MSL TCM								MSL FS Checkout 2				MSL FSW Update								MSL Approach																																			
																				MSL TCM																																								
GDSCC																																																												
CDSCC																																																												
MDSCC																																																												
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52								

Antenna Downtime Status and Forecast 2013

	January					February				March				April				May				June				July				August				September				October				November				December																			
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52													
2013 Key Project Events																																		DAWN Ceres Coasting																															
																						DAWN Ceres Thrst PB/TV																																											
	CHDR Dark Current													CHDR Dark Current				JWST Launch				CHDR Dark Current												CHDR Dark Current								CHDR Leonid																							
						CHDR Earth Eclipse																CHDR Earth Eclipse												JUNO EFB				JUNO Cruise																											
										JUNO Cruise												JUNO ME Flush				JUNO TCM																																							
																						MRO MSL Relay																																											
	NHPC Solar Conjunction																	NHPC Checkout																																															
																		NHPC DDOR				NHPC DDOR								NHPC Beacon																																			
																						NHPC Maneuver																																											
GDSCC																																																																	
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MDSCC																																																																	

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Antenna Downtime Status and Forecast

DSN Resource Implementation Planning Matrix by Subnet

Complex	Station	Subnet	S-Band		X-Band		Ka-Band		Ka Phase 2
			Down	Up	Down	Up	Down	Up	
40	DSS-46	26M*	✓	✓	N/A	N/A	N/A	N/A	N/A
10	DSS-27	34HSB	✓	✓	N/A	N/A	N/A	N/A	N/A
10	DSS-24	34B1	✓	✓	✓	✓	N/A	N/A	TBD
40	DSS-34	34B1	✓	✓	✓	✓	✓	N/A	TBD
60	DSS-54	34B1	✓	✓	✓	✓	✓	N/A	09/27/09
10	DSS-25	34B2	N/A	N/A	✓	✓	✓	08/29/10	N/A
10	DSS-26	34B2	N/A	N/A	✓	✓	✓	N/A	N/A
60	DSS-55	34B2	N/A	N/A	✓	✓	✓	N/A	N/A
10	DSS-15	34HEF	✓	N/A	✓	✓	N/A	N/A	N/A
40	DSS-45	34HEF	✓	✓	✓	✓	N/A	N/A	N/A
60	DSS-65	34HEF	✓	✓	✓	✓	N/A	N/A	N/A
10	DSS-14	70M	✓	✓	✓	✓	N/A	N/A	N/A
40	DSS-43	70M	✓	✓	✓	✓	N/A	N/A	N/A
60	DSS-63	70M	✓	✓	✓	✓	N/A	N/A	N/A
N/A = Capability Not Planned xx/xx/xx = Capability Date Recently Changed As of: 03/02/09 ✓ ✓ ✓ = Capability Recently Exists ✓ = Capability Exists * = To Be Decommissioned									